REMARKS/ARGUMENTS

The final office action of August 23, 2006 has been carefully reviewed and these remarks are responsive thereto. Reconsideration and allowance of the instant application are respectfully requested. Claims 7-12 remain in this application. Claims 1-6 and 13-18 were previously canceled without prejudice or disclaimer. New claims 19-30 have been added.

Claims 7-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. published application no. 20020133507 to Holenstein et al. ("Holenstein") in view of US patent 5588147 to Neeman et al. ("Neeman"). Claims 10-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Holenstein in view of Neeman, as applied to claims 7-9, and further in view of Brush, Gupta, Bargeron and Cadiz, "Robust Annotation Positioning in Digital Documents," published 9/22/2000, Microsoft Corporation, Technical Report (referred to hereinafter as "Gupta" to be consistent with the office action). Applicants respectfully traverse these rejections.

Amended independent claim 7 calls for, among other features, determining which node of the second data structure has received a change from a corresponding node in the first data structure. To show this feature, the action points to paragraph [0025], lines 1-6 and paragraph [0036], lines 1-2 of Holenstein. According to paragraph [0025] and Fig. 1, a collector A at node A extracts information about changes to the first database and passes that information to the consumer B at node B. Notably, neither consumer B nor collector A determines which node of a second data structure (allegedly node B) has received a change from a corresponding node (allegedly node A) in the first data structure. Indeed, at this time node B has not already received information about these changes from node A. This is the first time information about these changes is passed to consumer B at node B. The action alleges that the reading of the changes to the first database (in node A) performed by the collector A somehow shows "determining" which node of the second data structure has received a change. However, as discussed the collector A extracts information about changes, which have only been made to node A and of which node B is wholly unaware. As such, the collector A does not, and indeed cannot, determine which node of the second data structure has received a change from a corresponding node in the first data structure.

It appears that the action believes that the reverse replication described in paragraph [0036] of Holenstein somehow shows determining which node of the second data structure has received a change from a corresponding node in the first data structure. In paragraph [0036], reverse replication is defined as a unidirectional replication from the second database to the first database. Reverse replication occurs when an initial change is locally made to node B (as opposed to an initial change being locally made to node A). *See Holenstein*, at [0096]. The change to node B is then simply passed from collector B to consumer A at node A. As such, in reverse replication the collector B does not determine which node of the second data structure has received a change from a corresponding node in the first data structure.

In Holenstein paragraph [0123], transactions are processed via an exchange of ready to commit ("RTC") tokens in conjunction with sub-operations tagged with sequence numbers. Consumer B in node B receives an RTC token from the collector A at node A and verifies whether appropriate sequence numbers for a given transaction were received. If the sequence numbers are correct, all of the necessary sub-operations have been received by consumer B. As such, consumer B via collector B (in node B) forwards the RTC token to the consumer A of originating node A. If the sequence numbers are incorrect, then the consumer B will not forward the RTC token back to node A and the transaction will not be completed at either node. Even assuming, but not admitting, that the receipt of RTC token at the originating node somehow amounts to determining which node of the second data structure has received a change from a corresponding node in the first data structure, Holenstein neither teaches nor suggests, for each node in the second data structure determined to have received a change from a corresponding node in the first data structure, attempting to access the corresponding node in the first data structure, as recited in claim 7. Rather, in Holenstein, the second database merely uses the return of an RTC token to the originating node to convey the pass/fail status of a given transaction.

Moreover, Holenstein is deficient in other respects. To show the feature of, for each node in the second data structure determined to have received a change from a corresponding node in the first data structure, if the corresponding node in the first data structure is inaccessible, preventing the change from occurring, the action relies on Holenstein at paragraph [0157], lines 10-19. Notably, in Holenstein at paragraph [0157], if the communication interconnections or

other nodes suffer from irrecoverable errors, the originating node is still permitted to commit the transaction. Thus, contrary to the action's assertion, Holenstein neither teaches nor suggests preventing the change from occurring if the corresponding node in the first data structure is inaccessible as recited in claim 7.

Neeman does not remedy the above-noted deficiencies of Holenstein. Namely, Neeman does not contemplate or in any way suggest, for each node in the second data structure determined to have received a change from a corresponding node in the first data structure, attempting to access the corresponding node in the first data structure, or if the corresponding node in the first data structure is inaccessible, preventing the change from occurring as recited in claim 7. For at least this reason, the combination of Holenstein and Neeman, even if proper, would not have resulted in the claim 7 invention.

Claims 8, and 9, which each depend from claim 7, are patentably distinct over the combination of Holenstein and Neeman for the same reasons set forth above, and further in view of the additional advantageous features recited therein.

For example, dependent claim 8 calls for, among other features, deleting empty nodes from the first data structure. To show this feature, the action relies on Holenstein at paragraph [0157], lines 13-19. The action alleges that because the node has failed to reply and has been termed "inaccessible" in Holenstein that the claim 8 features of deleting empty nodes from the first data structure is shown. In Holenstein, a node can only be termed "inaccessible" as a result of the loss of the interconnecting communications media or the loss of an entire system. Applicants respectfully disagree that marking nodes as "inaccessible" teaches or suggests "deleting" empty nodes; nodes in Holenstein are termed "inaccessible" as a result of a communications failure whereas in the instant invention the deletion is brought about as a result of the nodes being empty. Also, dependent claim 9 calls for, among other features, identifying nodes in the first data structure for which a change to the second data structure creates a collision to a software application maintaining the first data structure. To show this feature, the action relies on Holenstein at paragraph [0134], lines 1-5. In Holenstein, if a failure is detected that is indicative of a potential collision situation (e.g. if all of the tokens do not properly and/or timely return from all other nodes), then the transaction is stopped by logic in the local application

program. Stopping a transaction by logic in the local application program as described in Holenstein in no way teaches or suggests identifying nodes in the first data structure for which a change to the second data structure creates a collision to a software application maintaining the first data structure as claimed. Neeman does not remedy the above-noted deficiencies of Holenstein with respect to claims 8 and 9. For at least these reasons, the combination of Holenstein and Neeman, even if proper, would not have resulted in the claim 8 and 9 inventions.

Claims 10-12 stand rejected over the combination Holenstein and Neeman further in view of Gupta. Gupta however, fails to remedy the defects of the combination of Holenstein and Neeman noted above with respect to claim 7 from which claims 10-12 depend. As such, notwithstanding the propriety of combining Holenstein and Neeman with Gupta, the combination would not have resulted in the invention of claims 10-12 for at least the same reasons as claim 7, and further in view of the additional advantageous features recited therein.

New claims 19-30 are fully supported by the specification and patentably distinct from the applied art for the same reasons set forth above with respect to claims 7-12 to the extent that they recite similar features.

CONCLUSION

It is believed that no fee is required for this submission. If any fees are required or if an overpayment is made, the Commissioner is authorized to debit or credit our Deposit Account No. 19-0733, accordingly.

All rejections having been addressed, applicants respectfully submit that the instant application is in condition for allowance, and respectfully solicit prompt notification of the same.

Respectfully submitted,

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